

# CUMULATIVE IMPACTS

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This section describes the cumulative impact assessment methodology, projects considered in the cumulative impact assessment, and potential cumulative impacts that would occur if these projects were implemented along with any one of the Species Conservation Habitat (SCH) Project alternatives.

## 4.1 CUMULATIVE IMPACT METHODOLOGY

The Council on Environmental Quality (40 Code of Federal Regulations [CFR] sections 1508.7 and 1508.25[a][2]) and the California Environmental Quality Act (CEQA) Guidelines (14 California Code of Regulations [CCR] section 15130) require a reasonable analysis of the significant cumulative impacts of a proposed action. The Council on Environmental Quality's regulations implementing the National Environmental Policy Act (NEPA) define a "cumulative impact" as follows:

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR section 1508.7).

The CEQA Guidelines define cumulative impacts similarly:

"Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probably future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CCR section 15355).

In addition, CEQA Guidelines section 15130(a)(1) states:

As defined in section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the Environmental Impact Report (EIR) together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.

Furthermore, CEQA Guidelines section 15064(h)(4) states:

The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

For the purposes of this Environmental Impact Statement/Environmental Impact Report (EIS/EIR), significant cumulative impacts would occur if the potential impacts related to SCH Project implementation, added to the impacts from other past, present, and reasonably foreseeable future projects in the region, would result in a significant effect. Federal, state, and local agencies and tribal governments with planning and regulatory authority in Imperial County were contacted to identify projects that may result in a cumulative impact. These projects then were examined for their potential to result in a cumulative impact when combined with the SCH Project. Projects included in the cumulative impact analysis were identified using a list approach and are those that could result in impacts on the same resources in the same geographic areas as the SCH Project alternatives. The general area that was considered in the cumulative impact analysis is limited to Imperial County. The geographic scope for each individual resource is described in Section 4.3.

## **4.2 ANALYSIS OF CUMULATIVE IMPACTS BY PROJECT**

This section describes the projects included in the cumulative impact analysis, the status of their environmental documentation, and anticipated environmental impacts of those projects (identifying only those resources that also would be affected by the SCH Project alternatives). Cumulative projects are discussed in alphabetical order below.

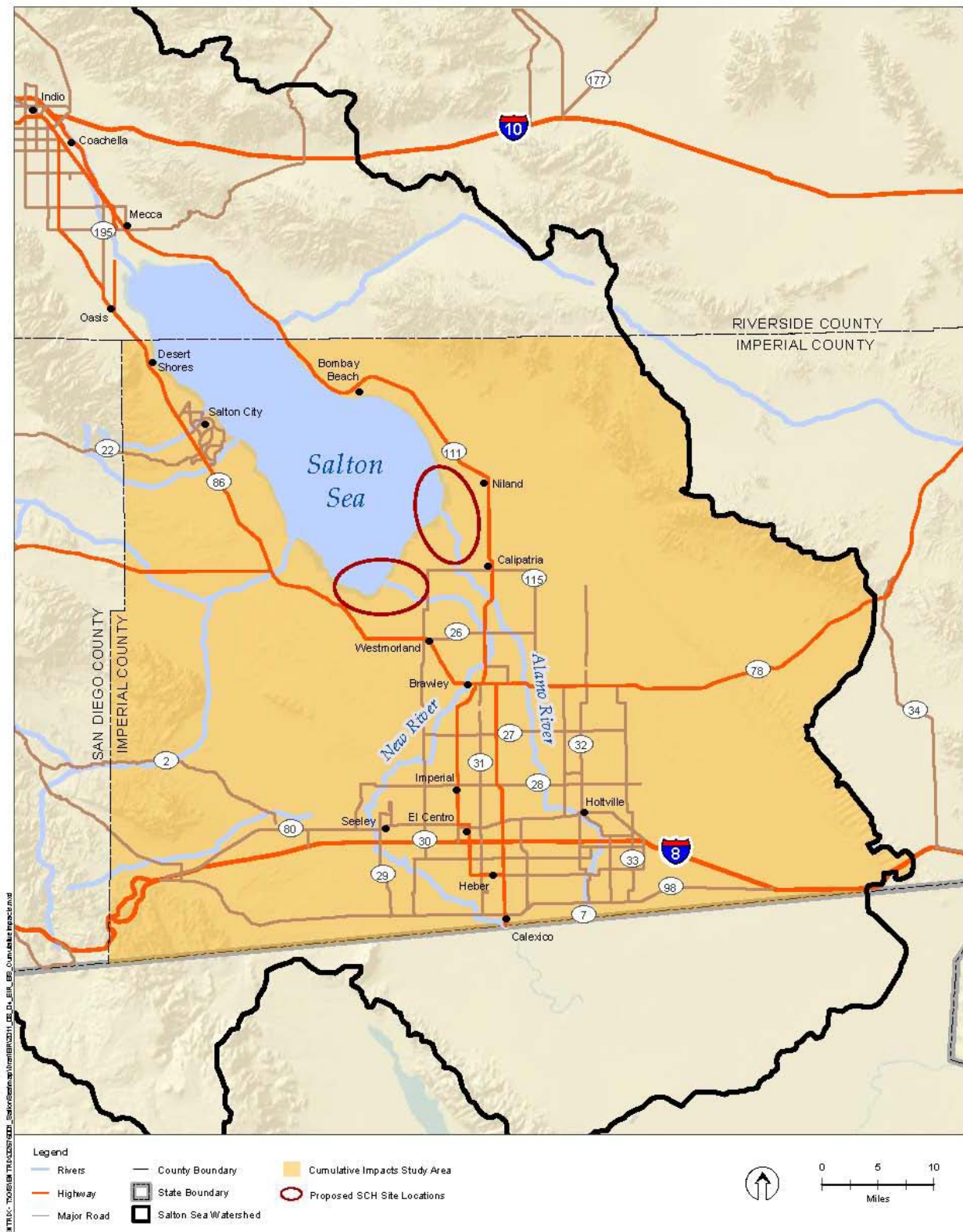
### **4.2.1 United States Army Corps of Engineers Section 404 Permit Projects**

#### **4.2.1.1 Project Description**

According to the United States (U.S.) Army Corps of Engineers (Corps) database (ORM II), between 1995 and 2010, the Corps issued a total of 36 section 404 permits within the Salton Sea Hydrologic Unit Code 8 watershed within Imperial County (Figure 4-1) (Appendix K). The authorizations issued are in the following categories: flood control, bank stabilization, recreation, restoration, linear transportation, boat docks, utility lines, and canal lining.

#### **4.2.1.2 Project Environmental Analysis Status and Anticipated Environmental Impacts**

Of the 36 permits issued in the Salton Sea watershed, 34 actions were for minor impacts to waters of the U.S. that were general permits authorized under the Corps' nationwide permit (NWP) program or regional general permits. General permit verifications authorized the discharge (placement) of fill material into 57.4 acres of waters of the U.S. and required 134.37 acres of mitigation. As documented in the NEPA decision documents for the reauthorization of the NWP Program in 2007, the majority of NWPs result in temporary impacts on aquatic resources. As a result, the Corps determined that the NWP Program results in minimal impacts, both individually and cumulatively. Two Standard Individual Permits were issued within this watershed, which authorized discharges of dredged and/or fill material into a maximum of 54.01 acres of waters of the U.S. and required 255.39 acres of compensatory mitigation (preservation, enhancement, restoration, and/or creation). Not including the proposed SCH Project, authorized impacts from all permits within the Salton Sea watershed issued since 1995 total 111.41 acres, with 389.7 acres of compensatory mitigation throughout the Salton Sea watershed. Within the HUC 8 watershed of the Salton Sea approximately a 3.5:1 compensatory mitigation to impact ratio was required.



**Figure 4-1 General Geographic Scope of Cumulative Impact Analysis**

## 4.2.2 Allied Imperial Landfill Expansion Project

### 4.2.2.1 Project Description

Allied Imperial Landfill, a Class III nonhazardous solid waste landfill, is currently approaching capacity. Imperial Landfill, Inc. proposes to construct an 89-acre new cell to the west of the existing landfill and to increase the maximum height of the existing and new landfill to 130 feet. This proposed expansion would expand the life of the landfill to approximately 30 years. The Allied Imperial Landfill Expansion Project also includes "...redesign of the facility, addition of a public drop-off facility, relocation of the scale house, increased recycling operations, and use of offsite borrow sites to supply soil for landfill cover operations" (Imperial County Planning Commission 2010, pg. ES-1). The existing and proposed landfill is located on Imperial County Assessor's Parcel Number 044-030-006-000, which is in an unincorporated area of Imperial County, south of Neckel Road, east of Dogwood Road, north of Robinson Road, and northeast of the city of Imperial.

### 4.2.2.2 Project Environmental Analysis Status and Anticipated Environmental Impacts

Imperial County Planning Commission issued the Final EIR for the Allied Imperial Landfill Expansion Project in March 2010 and published a Notice of Determination approving the project on September 23, 2010. The project would result in a variety of significant impacts, which would be mitigated to less-than-significant levels. These impacts would include: aesthetics (degradation of visual character in an area of 20 homes within 0.5 mile of the project site; requirement of new aircraft safety lights); air quality (operations would contribute to increases in regional emissions of nitrogen oxides [NO<sub>x</sub>], particulate matter 10 microns or smaller in diameter [PM<sub>10</sub>], and particulate matter 2.5 microns or smaller in diameter [PM<sub>2.5</sub>]); biological resources (native birds impacts due to construction and permanent habitat loss); cultural resources (construction could affect previously unidentified cultural sites, human remains, and paleontological sites); hazards and hazardous materials (excavations could uncover impacted/contaminated soils); noise (noise by activity on the working face of the landfill; noise by green waste processing; noise by construction, demolition, and inert debris facility processing; and noise from heavy earthmoving equipment operation); public services and recreation (impacts on the available water supply for sustained response by the fire department); and traffic (increase in traffic on surrounding roads due to increased hauling; inadequate emergency access) (Imperial County Planning Commission 2010).

## 4.2.3 Black Rock 1, 2, and 3 Geothermal Power Project (formerly Salton Sea Unit 6 Power Project)

### 4.2.3.1 Project Description

CE Obsidian Energy, LLC (Applicant) currently possesses a license with the California Energy Commission (CEC), issued in December 2003, to construct a 185-megawatt (MW) geothermal generating plant designated as Salton Sea Unit 6 on an 80-acre site adjacent to the Sea's southern shore in Imperial County, California. This original license was amended in May 2005 to allow the plant to increase its capacity to 215 MW. The Applicant petitioned, and the CEC subsequently granted, an extension to the Salton Sea Unit 6 license, making it effective until December 18, 2011 (CEC 2009).

On March 13, 2009, the Applicant filed a Petition for Major Amendment with the CEC to allow for the construction of three smaller geothermal plants totaling 159 MW net of generating capacity instead of the originally proposed 185 MW and 215 MW projects. This amended project is known as Black Rock 1, 2, and 3 Geothermal Power Project (Black Rock Project). Both the 185 MW and 215 MW projects previously proposed using multiple flash geothermal power-generating technology, while the Black Rock Project proposes using single flash technology, which requires less facility infrastructure and produces less waste compared to multiple flash technology (CEC 2009).

The Black Rock Project is within the Salton Sea Known Geothermal Resource Area, which extends from about Bombay Beach to Calipatria. The three units proposed for the Black Rock Project would be co-located on the same site as the original Salton Sea Unit 6 project and would share various common auxiliary facilities. The site is currently used for agriculture and surrounding land uses include existing geothermal power facilities, agriculture, and Sonny Bono Salton Sea National Wildlife Refuge. The Salton Sea Unit 6 project site was composed of an 80-acre site bounded on the north by McKendry Road, on the east by Boyle Road, on the west by Severe Road, and on the south by Peterson Road. The Black Rock Project would include an additional 80 acres adjacent to the south, plus the original 80-acre site. Part of the additional 80 acres was used for construction support in the original Salton Sea Unit 6 project. The three Black Rock Project power plants would be situated generally in the middle of the site with production well pads on the site's northern, western, and southern perimeters (CEC 2009).

The Black Rock Project is currently on hold because the CEC is still reviewing the Major Amendment proposed in March 2009. The Major Amendment is expected to be approved by the mid 2011 with construction of the Black Rock Project planned to begin in the end of 2011 (personal communication, D. Rundquist 2010).

#### **4.2.3.2 Project Environmental Analysis Status and Anticipated Environmental Impacts**

Environmental documents for the proposed Major Amendment have not been completed to date. However in 2003, the Applicant prepared an Application for Certification for the Salton Sea Unit 6 project, which is assumed to have similar anticipated environmental impacts as the Black Rock Project. Construction of the Black Rock Project would result in a variety of short-term construction impacts related to air quality, soils/geologic hazards, water quality/erosion, biological resources, cultural resources, paleontological resources, land use, and traffic and transportation. All of these impacts would be mitigated to less-than-significant levels. However, this project would have a beneficial impact on socioeconomics in Imperial County (California Department of Water Resources [DWR] and California Department of Fish and Game [DFG] 2007).

### **4.2.4 Chocolate Mountains Solar Farm**

#### **4.2.4.1 Project Description**

The Chocolate Mountains Solar Farm project is a 49.9 MW utility-scale photovoltaic (PV) solar power plant that would generate enough electricity to power over 20,000 households. This project's two optional PV solar panel setups include (1) between 260,000 and 320,000 nonreflective PV panels mounted together (nontracking), standing about 6 to 7 feet in height, and tilted 25 degrees from horizontal to the south; (2) between 160,000 and 210,000 nonreflective PV panels mounted together on a single axis tracking system, standing about 12 to 15 feet in height, and tilted between 20 and 25 degrees from horizontal to the south (CEQAnet 2010a). The Chocolate Mountains Solar Farm is located on 320 acres of land in the foothills of Imperial County's Chocolate Mountains, east of the Salton Sea, northwest of Niland, and southeast of Wister.

#### **4.2.4.2 Project Environmental Analysis Status and Anticipated Environmental Impacts**

A Mitigated Negative Declaration (MND) was prepared for Imperial County Planning and Development Services Department in June 2010. Currently, the Chocolate Mountains Solar Farm project is in advanced permitting and engineering stages, and is targeted to be operational in 2012 (8minutenergy Renewables, LLC 2011).

#### 4.2.5 Desert Springs Resort Specific Plan

##### 4.2.5.1 Project Description

The Desert Springs Resort Specific Plan would be a master planned outdoor desert recreational resort community on approximately 1,105 acres of undeveloped land in an unincorporated area of Imperial County, northwest of El Centro, California. Specifically, the Specific Plan area is located northwest of the intersection of Boley Road and Westmorland Road, and adjacent to the Westside Main Canal. This community would include up to 411 water sport lots, up to 792 recreational vehicle lots, up to 22 estate lots, up to 150 vacation villas, and up to 100 garage villas. A series of interconnecting lakes and navigable waterways would connect the residential units with other resort features: a clubhouse with a restaurant and pool, a boat dock, spa facilities, satellite recreational facilities, open space, and an executive golf course. The last major feature of this master planned community would be a racetrack/road course, which would include a garage pit area, commercial lots, retail/food court, and road course administration facilities. The Desert Springs Resort is scheduled to open in 2015 (County of Imperial 2010a).

##### 4.2.5.2 Project Environmental Analysis Status and Anticipated Environmental Impacts

BRG Consulting, Inc. prepared a Draft EIR for the Desert Springs Resort Specific Plan for the County of Imperial in May 2010. No significant unavoidable environmental impacts associated with the construction and operations of the project were identified in the Draft EIR. The following resource areas were found to have significant impacts as a result of construction, occupancy, and operation of the proposed project, but by implementing the proposed mitigation measures, these impacts would be reduced to less-than-significant levels: air quality (fugitive dust and PM<sub>10</sub> emissions during grading/operational phases contribute to air quality impacts; aggregate operational exceedance emissions in carbon monoxide, NO<sub>x</sub>, and reactive organic gases); agricultural resources (conversion of existing farmlands to other uses and the permanent loss of 539 acres of Prime Farmland and Farmland of Statewide Importance); biological resources (direct permanent impacts on western burrowing owls from vegetation community disturbance); cultural resources (an archaeological site is on the project site that is eligible for inclusion in the California Register of Historic Resources); geology/soils (project site is potentially subject to surface rupture/faulting; potential for liquefaction on southeastern flank of site; site underlain by clays of moderate to high expansion potential; potential for differential settlement on the project site; and construction would result in wind- and water-driven erosion of soils); hazards and hazardous materials (asbestos in on-site underground irrigation pipes; contamination from pesticides and herbicides from legacy farming operations on-site; miscellaneous debris/burnt debris on project site indicates the potential presence of dioxin; and significant staining from oil around an on-site trailer was observed); hydrology and water quality (short-term impact on surface water quality); noise (interior noise levels of residential units would increase); public services and utilities (increased demand for fire safety-related services; and generation of additional students going to existing schools in area); and traffic and transportation (adding additional lanes) (County of Imperial 2010a).

#### 4.2.6 East Brawley Geothermal Development Project

##### 4.2.6.1 Project Description

The East Brawley Geothermal Development Project is proposed to be located north of the City of Brawley, east of State Route 111, north of State Route 78, directly west of Dietrich Road, directly south of Rutherford Road, and east of the New River. Although the geothermal plant is proposed to be located on 33.7 acres, the area containing the geothermal wells and pipelines that would connect to the plant covers approximately 3,033 acres (County of Imperial 2011). This project proposes to construct a new 49.9 MW power plant containing up to six Ormat Energy Converters (16 MW gross each), approximately 36 total geothermal wells (half for injection and half for production), and a substation with a 2-mile long double-circuit 13.8 and 92 kilovolt transmission line, which would interconnect at the North Brawley 1

Geothermal Power Plant's substation (County of Imperial 2011). In addition, this project would include a pipelines to carry geothermal brine to the power plant, pipelines to carry cooled brine to injection wells, pipelines to distribute noncondensable gas from production wells to the power plant area and injection wells, and a water pipeline to bring water from Imperial Irrigation District's (IID's) Rockwood Canal to the power plant for cooling water (County of Imperial 2011).

#### 4.2.6.2 Project Environmental Analysis Status and Anticipated Environmental Impacts

The County of Imperial published a Draft EIR in March 2011. No significant unavoidable environmental impacts associated with the construction and operations of the project were identified in the Draft EIR. The following resource areas were found to have significant or potentially significant impacts as a result of construction, occupancy, and operation of the proposed project, but by implementing the proposed mitigation measures, these impacts would be reduced to less-than-significant levels: aesthetics (introduce new sources of light and glare, resulting in an increase in ambient light and glare levels); air quality (construction would result in short-term emissions of criteria air pollutants from construction equipment operation and soil disturbances; and project operations would result in long-term emissions of criteria air pollutants from mobile and area sources, and in low levels of hazardous air pollutant emissions in the vicinity of the project site); biological resources (direct and indirect loss of habitat and individuals of plant and animal species of endangered, threatened, rare, proposed, and candidate status, as well as species of concern, listed as "fully protected" in the California Fish and Game Code [i.e., southwestern willow flycatcher, western burrowing owl, Sierra Nevada red fox, American badger, California wolverine, riparian habitat and Federally protected wetlands]); cultural resources (impacts on prehistoric resources or undiscovered paleontological resources within project boundaries); geology/soils (project site is located in a seismically active area; construction would result in soil erosion and loss of topsoil; and site underlain by clays of moderate to high expansion potential); hazards and hazardous materials (construction and operation of the project would result in use, storage, and disposal of hazardous materials); hydrology and water quality (construction and build-out of the project would result in accelerated erosion and sedimentation to local waterways; construction and build-out would result in an increase in impervious surfaces and structures, which would result in an increase in runoff and pollutants to local waterways, possibly exceeding existing stormwater capacity); land use (project would temporarily increase the intensity of land use and would place industrial development in an unincorporated area of Imperial County that is predominantly agriculture); and public services (increased demand for fire protection services over existing levels) (County of Imperial 2011).

#### 4.2.7 Imperial Solar Energy Center South

##### 4.2.7.1 Project Description

The Imperial Solar Energy Center South project would include the construction and operation of a 200 MW ground-mounted PV solar power generating system, supporting structures, an operations and maintenance building, a substation, a water treatment facility, a plant control system, a meteorological station, roads, and fencing. This project would be developed on 946.6 acres of privately owned, undeveloped and agricultural land (United States [U.S.] Bureau of Land Management [BLM] and County of Imperial 2010a). This PV solar power generating system would transfer its electricity to the Imperial Valley Substation via 230-kilovolt transmission lines. An approximately 5-mile-long, 120-foot-wide right-of-way would be established from the project site, along BLM land, to the existing Imperial Valley Substation (CEQAnet 2010b). Imperial Solar Energy Center South would be located in an unincorporated area of Imperial County near the intersection of Pullman and Anza roads, approximately 10 miles west of Calexico, immediately north of the United States-Mexico international border, and directly adjacent to the All-American and Westside Main canals (BLM and County of Imperial 2010a).

#### 4.2.7.2 Project Environmental Analysis Status and Anticipated Environmental Impacts

Imperial County Planning and Development Services Department published an NOP to prepare an EIR in June 2010. The NOP states that a corresponding NEPA environmental assessment (EA) will be prepared to address the Applicant's proposed 120-foot right-of-way along BLM land (Imperial County Planning and Development Services Department 2010a). BRG Consulting, Inc. prepared a Draft EIR/EA for Imperial Solar Energy Center South for BLM and the County of Imperial by in December 2010. No significant unmitigable environmental impacts associated with the construction and operations of the proposed project were identified in the Draft EIR/EA. The following resource areas were found to have significant impacts as a result of construction, occupancy, and operation of the proposed project, but by implementing the proposed mitigation measures, these impacts would be reduced to less-than-significant levels: air quality (NO<sub>x</sub> emissions would present an air quality impact during the project grading/clearing/hauling phases); agricultural resources (conversion of existing farmlands to other nonagricultural uses would result in a permanent loss of 478.9 acres of Prime Farmland and 341.8 acres of Farmland of Statewide Importance); biological resources (permanent impact on 847.1 acres of vegetation communities and a temporary impact on 857 acres of vegetation communities; western burrowing owl impacts during construction and operation; flat-tailed horned lizard impacts during construction and operations; nesting raptor impacts if construction occurs during breeding season; migratory bird impacts if construction occurs during breeding season; and impacts during construction on streambeds under the jurisdiction of DFG, associated vegetation, Regional Water Quality Control Board waters of the state, and waters of the United States [U.S.]); cultural resources (two previously recorded archaeological sites are located on the project site, and seven adjacent archaeological sites that may be affected by runoff, etc., during construction); geology/soils and mineral resources (site is underlain by expansive soils; the four conditions for liquefaction all occur on the project site; there is the potential for corrosive soils on the project site; there is potential for differential settlement on the project site; and water-driven erosion of soils during construction would occur); health, safety and hazardous materials/fire and fuels management (miscellaneous debris/burnt debris located on the project site; and the use of herbicides for weed control during construction and operation would potentially impact health and safety); paleontological resources (project site potentially overlays undiscovered paleontological resources, which could be uncovered during construction); and transportation and circulation (there would be an increase in traffic in the area during construction) (BLM and County of Imperial 2010b).

#### 4.2.8 Imperial Solar Energy Center West

##### 4.2.8.1 Project Description

The Imperial Valley Solar Energy Center West project would include the construction and operation of a 250 MW ground-mounted PV solar power generating system, supporting structures, an operations and maintenance building, a substation, a water treatment facility, a plant control system, a meteorological station, roads, and fencing. This project would be developed on 1,130 acres of privately owned, economically unviable agricultural land (BLM and County of Imperial 2010b). Similar to Imperial Solar Energy Center South, this project would transfer its electricity to the Imperial Valley Substation via 230-kilovolt transmission lines. An approximately 5-mile-long, 120-foot-wide right-of-way would be established from the project site, along BLM land, to the Imperial Valley Substation (CEQAnet 2010c). Imperial Solar Energy Center West would be located in an unincorporated area of Imperial County to the north and south of Interstate 8, east of Reynolds Road, and west of the Westside Main Canal (BLM and County of Imperial 2010b).

##### 4.2.8.2 Project Environmental Analysis Status and Anticipated Environmental Impacts

Imperial County Planning and Development Services Department published a NOP to prepare an EIR in June 2010. The NOP states that a corresponding NEPA EA will be prepared to address the Applicant's

proposed 120-foot right-of-way along BLM land (Imperial County Planning and Development Services Department 2010b). BRG Consulting, Inc. prepared a Draft EIR/EA for Imperial Solar Energy Center West for BLM and the County of Imperial in November 2010. No significant unavoidable environmental impacts associated with the construction and operations of the proposed project were identified in the Draft EIR/EA. The following resource areas were found to have significant impacts as a result of construction, occupancy, and operation of the proposed project, but by implementing the proposed mitigation measures, these impacts would be reduced to less-than-significant levels: air quality (NO<sub>x</sub> emissions would present an air quality impact during the project grading/clearing/hauling phases); agricultural resources (conversion of existing farmlands to other nonagricultural uses would result in a permanent loss of 1,048.4 acres of Farmland of Local Importance); biological resources (permanent impact on 1,078.3 acres of vegetation communities and a temporary impact on 1,085.2 acres of vegetation communities; western burrowing owl impacts during construction and operation; flat-tailed horned lizard impacts during construction and operations; nesting raptor impacts if construction occurs during breeding season; migratory bird impacts if construction occurs during breeding season; and impacts during construction on U.S. Army Corps of Engineers jurisdictional waters, DFG streambeds and associated vegetation, Regional Water Quality Control Board waters of the state, and waters of the U.S.); cultural resources (three newly identified archaeological sites are located on the project site, and 11 adjacent archaeological sites may be affected by runoff during construction); geology/soils and mineral resources (site is underlain by expansive soils; there is potential for corrosive soils on the project site; and the potential for water-driven erosion of soils during construction); health, safety and hazardous materials (miscellaneous debris/burnt debris located on the project site; and the use of herbicides for weed control during construction and operation would potentially impact health and safety); hydrology and water quality (impacts from urban nonpoint source pollution during construction and post-construction activities; and 0.5 acre of U.S. Army Corps of Engineers jurisdictional resources and 7.2 acres of DFG jurisdictional resources would be affected during construction); paleontological resources (project site potentially overlays undiscovered paleontological resources, which could be uncovered during construction); and transportation and circulation (increase in traffic in the area during construction) (BLM and County of Imperial 2010b).

## 4.2.9 Imperial Valley Solar Company 1 Photovoltaic Solar Facility

### 4.2.9.1 Project Description

Imperial Valley Solar Company 1, LLC (Applicant) proposes to develop a 23 MW alternating current PV energy facility on a 123-acre site currently owned by IID. Annually, this project is expected to generate approximately 46,000 MW-hours of electricity, which would be delivered by a 2,400-foot-long, 13.2-kilovolt, overhead transmission line to the existing IID Niland Substation located approximately 20 feet from the southwestern boundary of the project site. Construction of this project is expected to last 6 months. Per a long-term power purchase agreement, IID would purchase all of this project's output. This project would be located in an unincorporated area of Imperial County east of Niland, west of Cuff Road, and east of Wilkins Road (County of Imperial 2010b).

### 4.2.9.2 Project Environmental Analysis Status and Anticipated Environmental Impacts

An MND was prepared for Imperial County Planning and Development Services Department in September 2010. Environmental impacts discussed in the MND include impacts on archaeological/historical resources and wildlife, but by implementing the proposed mitigation measures, these impacts would be reduced to less-than-significant levels. Specifically, impacts on biological resources would include impacts on burrowing owls and their associated habitat, and impacts on archaeological/historical resources would include the presence of one prehistoric archaeological resource within the project area that is potentially eligible for the California Register of Historic Resources (County of Imperial 2010b).

4.2.10 Imperial Valley Solar, LLC Project (formerly SES Solar Two) and Amendment to the California Desert Conservation Area Land Use Management Plan

4.2.10.1 Project Description

In June 2008, Stirling Energy System submitted an Application for Certification to the CEC for the construction of a 750 MW solar energy facility on an approximately 6,500-acre project site in Imperial County. The site is 14 miles west of El Centro and 4 miles east of Ocotillo. Approximately 30,000 25-kilowatt solar dish Stirling systems and associated infrastructure comprise the primary equipment for the generating facility. In the approximate center of the site, a new 230-kilovolt substation would be constructed and connect to the San Diego Gas and Electric Imperial Valley Substation via a 10.3-mile-long, double-circuit, 230-kilovolt transmission line. In addition, a water supply pipeline would be constructed to transport water to the project site from an off-site water treatment plant near the unincorporated area of Imperial County known as Seeley. Construction of the approved 709 MW project would begin in 2011 and would take approximately 40 months to complete. However, as each 60-unit group of Stirling Energy Systems engine modules is completed, power would be available to the electricity grid.

4.2.10.2 Project Environmental Analysis Status and Anticipated Environmental Impacts

The BLM published a Notice of Intent for this project on October 17, 2008, the CEC found the Application for Certification data adequate on October 8, 2009, and BLM published a Notice of Availability of the Draft EIS on February 12, 2010, and a Notice of Availability of the Final EIS on July 28, 2010. The CEC approved the Application for Certification on September 29, 2010, and BLM issued a Record of Decision on October 5, 2010. The Imperial Valley Solar (IVS) project would result in a variety of unavoidable adverse environmental impacts, even after mitigations are implemented. These impact areas would include biological resources (flat-tailed horned lizard), cultural resources, land use (loss of recreational land/open space), recreation, and visual resources (conversion of natural desert landscape to an industrial landscape). Impacts mitigated to less-than-significant levels would include impacts on biological resources, paleontological resources, noise, hydrology, water use (implementation of the Seeley Waste Water Treatment Plant [SWWTP] upgrades would reduce water use impacts), and water quality (BLM 2010a).

The IVS project plans to obtain its water supply for construction and operations from the SWWTP, which is currently undergoing the EIR process through Imperial County for an upgrade to the plant to ensure that it can meet the long-term needs of the IVS project. According to the IVS Final EIS, upgrades to the SWWTP would not be completed in time for the construction of the IVS project. Therefore, Dan Boyer Water Company in Ocotillo would provide water for the first six months of construction, but not to exceed 36 months. Upon completion of the SWWTP upgrades, an average of 33,550 gallons per day (gpd), and a maximum of 200,000 gpd would be transferred to the IVS project, which corresponds to approximately 0.05 and 0.31 cubic foot per second (cfs), respectively. This rerouted water would normally be discharged from the SWWTP to the New River, which eventually discharges to the Salton Sea. The IVS Final EIS states that, “A reduction of 0.05 to 0.31 cfs to the New River discharge is 0.03 to 0.16 percent of the total [discharge] and would not have a material effect on water quantity of the river” (BLM 2010a , pg. 4.17-25).

## **4.2.11 Metropolitan Water District of Southern California's New and Alamo Rivers Water Rights Applications**

### **4.2.11.1 Project Description**

On November 7, 1997, Metropolitan Water District of Southern California (Metropolitan) filed Application 30661 with the State Water Resources Control Board (SWRCB), requesting a permit to divert water from the Alamo River and unnamed drains tributary to the Alamo River. The application requests a maximum direct diversion of 800 cfs and a maximum annual use of 475,000 acre-feet. The purposes of use specified in the application include municipal, industrial, irrigation, and fish and wildlife protection and/or enhancement. This application is still pending with the SWRCB (DWR and DFG 2007).

Metropolitan prepared an analysis of the availability of unappropriated water from the Alamo River and unnamed drains tributary to the Alamo River in 2004 (Metropolitan 2004, as cited in DWR and DFG 2007). The report identified two alternative ways for Metropolitan to use the water. One alternative would include an exchange of Colorado River water for Alamo River water with Coachella Valley Water District (CVWD). The second alternative would provide delivery of the water to the Colorado River Aqueduct for use by Metropolitan. Under both alternatives, the water would need to be treated by desalination prior to use (DWR and DFG 2007).

On September 23, 2004, Metropolitan filed Application 31431 with the SWRCB, requesting a permit to divert water from the New River and irrigation drains tributary to the New River. The application requests a maximum direct diversion of 700 cfs and a maximum annual use of 433,400 acre-feet. This application is still pending with the SWRCB (DWR and DFG 2007).

This project would consist of construction of diversion works on the New River, desalination and treatment facilities, and a conveyance system to deliver the water. The first option for delivery of treated water would be through a conveyance system directly to the Colorado River Aqueduct or to IID and CVWD through the Coachella Canal and other local irrigation works. Under the second delivery option, IID and/or the CVWD would exchange an equivalent amount of their Colorado River water for the desalted New River water (DWR and DFG 2007).

### **4.2.11.2 Project Environmental Analysis Status and Anticipated Environmental Impacts**

Environmental documents for this project have not been completed to date. Diversion of water from the New and Alamo rivers has the potential to result in both temporary construction-related impacts and long-term impacts. Temporary impacts could include impacts on biological resources, cultural resources, and water resources due to construction of treatment and desalination plants and related conveyance facilities. Long-term impacts would include reduction in flows in the New and Alamo rivers, water quality impacts in the New and Alamo rivers, reduced inflows to the Salton Sea, and impacts on water quality in the Salton Sea. Long-term impacts could also include impacts on biological resources in both the New and Alamo rivers and the Salton Sea due to reduced flow/inflows and changing water quality (DWR and DFG 2007). Quantification Settlement Agreement mitigation water will terminate in 2017, thereby compounding the potential impact of reduced flows pursuant to Metropolitan's extraction of water from the New and Alamo rivers (refer to Section 1 for additional discussion of this agreement).

## **4.2.12 Seeley County Wastewater Treatment Plant Upgrade Project**

### **4.2.12.1 Project Description**

The Seeley County Wastewater Treatment Plant Upgrade Project would consist of an upgrade to an existing wastewater treatment facility immediately east of the New River along the western boundary of the unincorporated community of Seeley in Imperial County. The upgrade would ensure that the new

wastewater treatment plant is in compliance with Title 22 standards; specifically, the effluent would be suitable for unrestricted recycled uses and for discharge into the New River. The treatment plant's current capacity is 250,000 gpd, and in 2008, discharged approximately 112,000 gpd into the New River. The plant currently has a 2-acre primary treatment pond, two 0.12-acre "reactor" ponds, and three 0.14-acre sedimentation ponds. The proposed plant upgrades include modifying two existing treatment ponds to allow an extended aeration activated sludge process, adding microfiltration and ultraviolet disinfection, converting two existing treatment ponds to in-ground earthen basins with the capacity to store up to 300,000 gallons of Title 22 recycled water, installing a new backup generator, and installing and upgrading existing underground piping (Seeley County Water District 2010).

#### **4.2.12.2 Project Environmental Analysis Status and Anticipated Environmental Impacts**

Environmental documents for this project have not been completed to date. According to Seeley County Water District (2010), probable environmental impacts would most likely be in the areas of water quality, biology, air quality, noise, and growth inducement. Specifically, "The EIR...will address impacts of ceasing discharge through the unlined channel to the New River (pg. 3)." As mentioned above in the discussion of the IVS Project, the upgrades to this wastewater treatment plant would provide up to 200,000 gpd to the IVS Project. This diverted water would otherwise be discharged into the New River and eventually flow to the Salton Sea.

#### **4.2.13 Travertine Point Specific Plan**

##### **4.2.13.1 Project Description**

Black Emerald, LLC (Applicant) proposed the Travertine Point Specific Plan (Travertine Point), which was prepared in consultation with the Torres Martinez Desert Cahuilla Indian Tribe. Travertine Point would master plan a mixed-use community on both tribal and nontribal lands within the specific plan area on the Salton Sea's northwestern shore, south of the community of Oasis, and northeast of Anza-Borrego Desert State Park. The proposed specific plan area is 4,918 acres, 3,508 acres of which is nontribal land. 3,938 acres of land is located in Riverside County and 980 acres of land is located in Imperial County. Travertine Point would include four districts, with the following land uses: a town center, a marina, a resort/casino, a cultural preserve and living desert, residential neighborhoods, regional and local commercial retail, 1,525 acres of open space and recreational areas, schools, and public services and facilities. Project construction is expected to take place in a time span of 35 years, with initial development commencing in 2016 (Riverside County Planning Department 2010).

##### **4.2.13.2 Project Environmental Analysis Status and Anticipated Environmental Impacts**

The Riverside County Planning Department prepared a Revised Draft EIR in November 2010. The Travertine Point Specific Plan project would result in a variety of significant and unavoidable impacts, even after mitigations are implemented. These impacts would include aesthetics (impacts on views from the Salton Sea, Travertine Rock, and the Santa Rosa and San Jacinto Mountains National Monument; damage to the existing visual character of the site, if deemed to be of value; an increase in light and glare compared to current conditions; and existing residences would experience an increase in nighttime lighting and glare); agricultural resources (a loss of 1,559 acres of Prime Farmland, 1,553 acres of Unique Farmland, and 362 acres of Farmland of Local Importance would be incurred); air quality (construction and operations would exceed thresholds for volatile organic compounds, NO<sub>x</sub>, carbon monoxide, PM<sub>10</sub>, and PM<sub>2.5</sub>; project would conflict with implementation of South Coast Air Quality Management District's and Imperial County Air Pollution Control District's (ICAPCD's) air quality management plans; sensitive populations residing at project site could experience more serious adverse health impacts due to long-term high levels of ozone (O<sub>3</sub>), volatile organic compounds, PM<sub>10</sub>, and PM<sub>2.5</sub>; expose workers to fugitive dust [valley fever and Hantavirus]; operations would generate more diesel-fueled truck trips leading to

emissions of diesel particulate matter; and the Salton Sea would be a source of adverse odors during project operations); cultural resources (operations would lead to increased human intrusion into areas containing cultural resources); greenhouse gases (GHGs) (at buildout, the project would increase the amount of emissions from the existing baseline by over 237,000 metric tons of carbon dioxide equivalents per year; and the project would potentially impede California's ability to comply with Assembly Bill 32 and with the region's ability to meet the regional land use planning GHG reduction targets under Senate Bill 375); land use and planning (project would induce an incremental loss of open space in Riverside and Imperial counties); noise (off-site roadways would experience noise level increases above five A-weighted decibels; and construction equipment operation near sensitive receptors could result in vibration levels above 0.01 inch/second [including at on-site receptors that were constructed during earlier project construction phases]); public services – parks and recreation (indirect impacts to off-site areas from the intrusion of humans, pets, and motorized vehicles in sensitive areas); and transportation/traffic (during phased construction, some intersections could operate at unacceptable levels of service). Impacts mitigated to less-than-significant levels would include impacts on biological resources, geology and soils, hazards and hazardous materials, population and housing, public services (fire protection, law enforcement, education, libraries, and medical services), and utilities (Riverside County Planning Department 2010).

#### **4.2.14     Truckhaven Geothermal Leasing Area**

##### **4.2.14.1     Project Description**

Truckhaven Geothermal Leasing Area encompasses a total of 14,731 acres in western Imperial County, north of State Route 78, west of State Route 86, south of County Highway S-22, east of Anza Borrego Desert State Park, and overlaps portions of Ocotillo Wells State Vehicular Recreation Area (BLM 2007). The action associated with this project is the decision of whether or not BLM-managed lands within Truckhaven Geothermal Leasing Area should be leased for geothermal development.

##### **4.2.14.2     Project Environmental Analysis Status and Anticipated Environmental Impacts**

After review of a Final EIS, BLM issued a Record of Decision to lease all BLM-managed lands, totaling 14,731 acres, within Truckhaven Geothermal Leasing Area (BLM 2008). The issuance of geothermal leases has no direct impacts because it does not grant the lessee the right to explore for or develop geothermal resources if such activities require surface disturbance or other extensive operations. However, indirect environmental impacts are assumed as leasing represents that exploration, development, and production of geothermal resources would occur at some point in the near future. As such, before any lessee conducts exploration or development of geothermal resources within the BLM-managed Truckhaven Geothermal leasing Area, a separate NEPA process would be required for this project in question (BLM 2008).

Indirect environmental impacts associated with Truckhaven Geothermal Leasing Area would include impacts on air quality (particulates from land disturbance, unpaved access roads, and construction diesel engine exhaust would increase); archaeology/cultural resources (33 currently recorded sites within the project area, including some of the largest Lake Cahuilla habitation sites in the area); fish and wildlife (adversely affecting wildlife populations and species/natural community/habitat recognized for importance; impeding wildlife/avian migration routes; and preventing natural community reestablishment); human health and safety/hazardous materials (hazardous materials use during exploration, construction, operations; increased traffic; and project parcels are located in a Navy fly zone); recreation (reduction of opportunities to off-highway vehicles); special-status species (10 special-status plants, flat-tailed horned lizard, and California desert fringe-toed lizard); topography, geology, and geological hazards (502 acres of initial disturbance and 405 acres of final land disturbance); vegetation (construction-related contaminants on soil or in runoff could inhibit plant growth; loss of plant habitats;

plant community fragmentation; and introduction of invasive species would be possible); and visual resources (two geothermal plants, wells, steam from water cooling, and transmission lines could all have negative impacts on the aesthetic character of the area) (BLM 2008).

#### **4.2.15     West Chocolate Mountains Renewable Energy Evaluation Area**

##### **4.2.15.1     Project Description**

This action would assess whether West Chocolate Mountains Renewable Energy Evaluation Area, an area of land 21,300 acres in size and managed by the BLM, should be made available for renewable energy development, specifically, for geothermal leasing, solar energy rights-of-way, and wind energy rights-of-way. The project area is bordered by Imperial Sand Dunes Recreation Area on the south, the Imperial Valley agricultural belt on the west, the Imperial/Riverside County line on the north, and Chocolate Mountains Aerial Bombing and Gunnery Range on the east (BLM 2010b).

##### **4.2.15.2     Project Environmental Analysis Status and Anticipated Environmental Impacts**

The BLM prepared a Notice of Intent to prepare an EIS on February 10, 2010, and the Draft EIS and California Desert Conservation Area Plan (CDCAP) Amendment was released in June 2011 (BLM 2011). The CDCAP Amendment assesses whether renewable energy development should be allowed within the West Chocolate Mountains Area. Impacts from the various types of development could include moderate, and adverse air quality impacts during construction and operation from fugitive dust, PM<sub>10</sub>, carbon monoxide, and ozone precursors emissions. These emissions may contribute to ongoing exceedances of National Ambient Air Quality Standards, but could be offset by a reduction in air pollutants caused by fossil fuel-burning power plants. Impacts on cultural and paleontological resources could include the degradation of important resources/significant paleontological resources, disturbance of human remains, changes in the significance of a historical resource, and introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features. Impacts on visual resources could include the introduction of contrast to the environment. The project also could result in a disproportionate share of adverse impacts on certain racial, ethnic, or socioeconomic groups. The potential impacts associated with the West Chocolate Mountains Renewable Energy Evaluation Area project would be greatest under the full renewable energy development alternative. However, the majority of impacts would be reduced or avoided with the implementation of mitigation measures.

#### **4.2.16     Summary of Cumulative Project Impacts**

The potential impacts of the projects discussed above are summarized in Table 4-1. Although an environmental document has not yet been completed for some of these projects, the table assumes that potentially significant impacts could result, based on the list of potential environmental issues to be addressed for that project, even if feasible mitigation measures may be available to reduce impacts on less than significant. The Corps 404 permits are not included in the table because as discussed above, the Corps has found that issuance of such permits has resulted in minimal impacts because adequate compensatory mitigation was required.

**Table 4-1 Related Projects Impact Summary**

| Impact Areas                    | Related Projects                   |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
|---------------------------------|------------------------------------|---|---|-------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|--|------------------------------------|--|---------------------------|--------------------------------|---|---|
|                                 | Allied Imperial Landfill Expansion | Black Rock 1, 2, and 3 Geothermal Power | Chocolate Mountains Solar Farm <sup>1</sup> | Desert Springs Resort Specific Plan | East Brawley Geothermal Development | Imperial Solar Energy Center South | Imperial Solar Energy Center West | Imperial Valley Solar Company PV Solar | Imperial Valley Solar, LLC Project | Metropolitan New & Alamo Rivers Water Rights Applications <sup>2</sup> | Seeley County WTP Upgrade | Travertine Point Specific Plan | Truckhaven Geothermal Leasing Area <sup>3</sup> | West Chocolate Mtns. Renewable Energy Area <sup>4</sup> |
| Aesthetics                      | S                                  |   |   |                                     | PS                                  |                                    |                                   |  | U                                  |  |                           | U                              | PS  | S   |
| Agricultural Resources          |                                    |   |   | S                                   |                                     | S                                  | S                                 |  |                                    |  |                           | U                              |   |   |
| Air Quality                     | S                                  | S                                       |   | S                                   | PS                                  | S                                  | S                                 |  |                                    |  | PS                        | U                              | PS  | S   |
| Biological Resources            | S                                  |   |   | S                                   | PS                                  |                                    | S                                 | S                                      | U                                  | PS   | PS                        | S                              | PS  | S   |
| Cultural Resources              | S                                  |   |   | S                                   | PS                                  | S                                  | S                                 | S                                      | U                                  |  |                           | U                              | PS  | S   |
| Energy Consumption              |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
| Environmental Justice           |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
| Geology and Soils               |                                    | S                                       |   | S                                   | PS                                  | S                                  | S                                 |  |                                    |  |                           | S                              | PS  | S   |
| Greenhouse Gas Emissions        |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           | U                              |   |   |
| Hazards and Hazardous Materials | S                                  |   |   | S                                   | PS                                  | S                                  | S                                 |  |                                    |  |                           |                                |   | S   |
| Hydrology and Water Quality     |                                    |   |   | S                                   | PS                                  |                                    | S                                 |  | S                                  | PS   | PS                        |                                |   | S   |
| Indian Trust Assets             |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
| Land Use                        |                                    |   |   |                                     | PS                                  |                                    |                                   |  | S                                  |  |                           | U                              |   | PS  |
| Noise                           | S                                  |   |   | S                                   |                                     |                                    |                                   |  | S                                  |  | PS                        | U                              |   | S   |
| Paleontological Resources       |                                    |   |   |                                     | PS                                  | S                                  | S                                 |  | S                                  |  |                           |                                |   | S   |
| Population and Housing          |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
| Public Services                 | S                                  |   |   |                                     | PS                                  |                                    |                                   |  |                                    |  |                           | S                              |   |   |

**SECTION 4.0**  
**CUMULATIVE IMPACTS**

**Table 4-1 Related Projects Impact Summary**

| Impact Areas   | Related Projects                   |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
|--|------------------------------------|---|---|-------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|--|------------------------------------|--|---------------------------|--------------------------------|---|---|
|  | Allied Imperial Landfill Expansion | Black Rock 1, 2, and 3 Geothermal Power | Chocolate Mountains Solar Farm <sup>1</sup> | Desert Springs Resort Specific Plan | East Brawley Geothermal Development | Imperial Solar Energy Center South | Imperial Solar Energy Center West | Imperial Valley Solar Company PV Solar | Imperial Valley Solar, LLC Project | Metropolitan New & Alamo Rivers Water Rights Applications <sup>2</sup> | Seeley County WTP Upgrade | Travertine Point Specific Plan | Truckhaven Geothermal Leasing Area <sup>3</sup> | West Chocolate Mtns. Renewable Energy Area <sup>4</sup> |
| Recreation   |                                    |   |   |                                     |                                     |                                    |                                   |  | U                                  |  |                           | U                              | PS  |   |
| Socioeconomics   |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
| Transportation   | S                                  |   |   | S                                   |                                     | S                                  | S                                 |  |                                    |  |                           | U                              |   | S   |
| Utilities and Service Systems  |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |
| <p>Symbols S: Impacts would be mitigated to a Less-than-Significant level<br/> U: Impacts would be Significant and Unavoidable<br/> PS: Impacts could be potentially significant, although feasible mitigation measures may be identified to reduce impacts</p> <p>Notes:</p> <p>1: A Mitigated Negative Declaration prepared for the project did not identify significant effects.</p> <p>2, 3: Because no environmental document has been completed for the project, it is assumed that potentially significant impacts could result.</p> <p>4: NEPA does not require the characterization of an impact's significance, but for purposes of this analysis, those impacts requiring mitigation are classified as significant ("S").</p> |                                    |   |   |                                     |                                     |                                    |                                   |  |                                    |  |                           |                                |   |   |

## 4.3 ANALYSIS OF CUMULATIVE IMPACTS BY RESOURCE

This section summarizes the potential cumulative impacts, organized by resource area, which would result from the implementation of the SCH Project alternatives and the related projects described above. Mitigation measures to reduce significant cumulative impacts are identified as appropriate.

### 4.3.1 Aesthetics

The geographic scope for the aesthetics cumulative impact analysis is limited to the area shown in Figure 4-1, with particular emphasis on the area around the Salton Sea. Cumulative impacts on the visual environment associated with construction of the projects discussed above along with any of the SCH Project alternatives would be less than significant, since these projects would be constructed at various locations around the Salton Sea and Imperial Valley, and aesthetic impacts would be short-term and localized. Operation and maintenance of the projects described above would result in changes to the visual environment through the introduction of buildings and infrastructure and the associated loss of open space. Implementation of one of the SCH Project alternatives would result in beneficial aesthetic impacts related to change in the visual character of the area occupied by the SCH ponds. Therefore, implementation of any of the SCH Project alternatives would not contribute to any adverse impacts, and no long-term adverse cumulative aesthetic impacts would occur.

### 4.3.2 Agricultural Resources

The geographic scope for the agricultural resources cumulative impact analysis is Imperial County. Construction and operation of the projects described above could result in the loss of several thousand acres of Important Farmland in Imperial County. The cumulative loss of Important Farmland would result in a significant cumulative impact on agricultural resources. Development of the sedimentation basin associated with SCH Project Alternatives 1 and 4 would result in the loss of 60 acres of Important Farmland in Imperial County. The contribution of either of these alternatives to the cumulative impact would not be cumulatively considerable and therefore would not be significant because the small increment that would be lost would be negligible in relation to the overall amount of Important Farmland present in the Imperial Valley (over 500,000 acres).

### 4.3.3 Air Quality

The geographic scope for the air quality cumulative impact analysis is the portion of the Salton Sea Air Basin under the jurisdiction of the Imperial County Air Pollution Control District. Construction and operation of the projects described above would result in emissions that may not be entirely accounted for in applicable air quality plans and, thus, could conflict with or obstruct the implementation of such plans. SCH Project construction, operation, and maintenance would result in the emission of criteria pollutants and construction would exceed the ICAPD's thresholds for NO<sub>x</sub> (all alternatives) and PM<sub>10</sub> (Alternatives 1, 2, and 3). The cumulative impact for NO<sub>x</sub> would be significant for all alternatives, and the Project's contribution would be cumulatively considerable and therefore significant. Feasible mitigation measures for the projects described above would reduce, but not entirely eliminate, the generation of emissions that exceed the cumulative emissions estimates contained in the *Imperial County Attainment Status and Applicable Plans*. As discussed in Section 3.3, implementation of MM AQ-1, implement fugitive PM<sub>10</sub> control measures, and MM AQ-2, implement diesel control measures, would not reduce the PM<sub>10</sub> emissions to below the thresholds for Alternatives 1, 2, and 3, and the NO<sub>x</sub> emissions would remain significant. Thus, the cumulative impact from NO<sub>x</sub> emissions from all alternatives and PM<sub>10</sub> emissions from Alternatives 1, 2, and 3 would be significant and unavoidable.

Operation of the projects discussed above could result in cumulative violations of Federal and state standards or ICAPCD's thresholds. Emissions from SCH Project operation would be limited to routine

1 maintenance and associated vehicular traffic, and such emissions would not exceed applicable thresholds.  
2 Thus, the SCH Project's contribution to operational emissions would not be cumulatively considerable.

3 The SWWTP would reduce the discharge to the New River by 0.05 to 0.31 cfs, which is 0.03 to 0.16  
4 percent of the total discharge. This would result in a negligible decrease in the flows to the Salton Sea,  
5 and could incrementally expose more playa, increasing the potential for fugitive dust emission. The SCH  
6 ponds would cover more playa than would be exposed as a result of any of the alternatives, reducing the  
7 potential for fugitive dust emissions. The SCH Project would have a beneficial impact on fugitive dust  
8 emissions; therefore, it would not contribute to a cumulatively considerable and significant impact.

#### 9 **4.3.4 Biological Resources**

10 The geographic scope for the biological resources cumulative impact analysis is the area shown on Figure  
11 4-1. As discussed above, the Corps has found that issuance of section 404 permits has resulted in minimal  
12 environmental impacts. Such a permit would be required for the SCH Project, but permit conditions  
13 (compensatory mitigation) would be required that would ensure that impacts of this project on waters of  
14 the U.S. were minimized, as well, and any cumulative impacts from the issuance of such permits would  
15 not be significant. Construction, operation, and maintenance of the other projects discussed above could  
16 result in significant cumulative impacts on biological resources associated with the loss of habitat and  
17 individuals of special-status species, disturbance or loss of riparian or other sensitive habitats, and adverse  
18 affects on Federal Waters of the U.S., including wetlands. Although the SCH Project alternatives would  
19 have overall beneficial impacts on biological resources, construction, maintenance, and operations would  
20 result in significant impacts, as well, and its contribution would be cumulatively considerable. Feasible  
21 mitigation measures would reduce potential impacts of other projects, and implementation of MM BIO-1,  
22 a desert pupfish relocation plan, MM BIO-2, preconstruction and maintenance surveys, MM BIO-3, noise  
23 measurements and as-needed noise attenuation features, and MM BIO-4, a habitat mitigation and  
24 restoration plan, would reduce the SCH Project's contribution to cumulative impacts on biological  
25 resources to less than significant.

#### 26 **4.3.5 Cultural Resources**

27 The geographic scope for the biological resources cumulative impact analysis is Imperial County.  
28 Ground-disturbing activities associated with the projects discussed above could result in adverse impacts  
29 on cultural resources, including damage to known or currently unknown archaeological and historical  
30 resources, and could result in the inadvertent discovery of human remains. A large area of land surface  
31 could be subject to ground disturbance, and the cumulative impacts would be significant. Ground-  
32 disturbing activities associated with one of the SCH Project alternatives also could result in damage to  
33 currently unknown cultural resources or the inadvertent discovery of human remains. The contribution of  
34 the SCH Project to the impacts of other projects would be cumulatively considerable and therefore  
35 significant. Implementation of standard mitigation measures for cultural resources would reduce potential  
36 impacts of other projects, and implementation of MM CR-1, prepare and implement a survey plan and an  
37 inadvertent discovery plan would reduce the contribution of the SCH Project to less than significant.

#### 38 **4.3.6 Energy Consumption**

39 The geographic scope for the energy consumption cumulative impact analysis is Imperial County.  
40 Construction, operation, and maintenance of the projects discussed above would result in the consumption  
41 of energy, including electricity, natural gas, diesel fuel, and gasoline, but would not necessarily result in  
42 the inefficient, wasteful, or unnecessary consumption of energy. Several of the projects discussed above  
43 would result in the generation of electrical energy and cumulative impacts would be less than significant.  
44 SCH Project operation would require the use of diesel-powered pumps to deliver saline water from the  
45 Salton Sea to the SCH ponds. Over time, the efficiency of the saline pump may decrease under long-term

pumping; however, a comparatively minor amount of energy would be required, and the SCH Project's contribution to the cumulative impact would not be considerable and is therefore, less than significant.

#### 4.3.7 Environmental Justice

The geographic scope for the environmental justice cumulative impact analysis is Imperial County. Under CEQA, economic and social impacts are not considered significant effects on the environment. Construction emissions associated with the projects discussed above, along with those of the SCH Project could have a disproportionate impact on minority and low-income populations. The cumulative impact would be significant, and the SCH Project's contribution would be cumulative considerable. All projects would be required to comply with the Imperial County Air Pollution Control District's Regulation VIII, which would reduce fugitive dust and combustive emissions, and implement other feasible mitigation measures. Implementation of MM AQ-1 and MM AQ-2 would reduce the significant fugitive dust (PM<sub>10</sub>) impacts of the Alternatives 1, 2, and 3 to less than significant, and would reduce, but not eliminate short term NO<sub>x</sub> impacts. The cumulative impact, therefore, would be significant and unavoidable.

As discussed in Section 4.3.5 above, both the SCH Project and other projects in the area would have the potential to affect cultural resources, including human remains. This would result in a significant cumulative impact on cultural resources, and the SCH Project's contribution would be considerable and therefore significant. . Implementation of standard mitigation measures for cultural resources would reduce potential impacts of other projects, and implementation of MM CR-1, prepare and implement a survey plan and an inadvertent discovery plan would reduce the contribution of the SCH Project to less than significant.

Construction and operation of the projects described above could result in the permanent conversion of several thousand acres of Important Farmland in Imperial County to nonagricultural use, which could reduce employment opportunities that would disproportionately affect minority and low-income communities in the area around the Salton Sea. The cumulative impacts of these projects would be significant. Development of the sedimentation basin for the SCH Project under Alternatives 1 and 4 would result in the permanent conversion of 60 acres of Important Farmland in Imperial County to non-agricultural use. The Project's contribution to this impact would not be cumulatively considerable for these alternatives given the small amount of land that would be used in relation to land in production (over 500,000 acres).

#### 4.3.8 Geology and Soils

The geographic scope for the geology and soils cumulative impact analysis is the area surrounding the SCH Project alternative sites and the local source for rock and gravel. Impacts related to geology and soils would be highly localized, and the SCH Project alternatives would not result in a cumulative impact in combination with other projects. The SCH Project would require the use of rock as a construction material, and although other projects may also require such use, rock is a readily available resource, and the cumulative impact would be less than significant.

#### 4.3.9 Greenhouse Gas Emissions/Climate Change

The geographic scope for the greenhouse gas emissions/climate change cumulative impact analysis is the entire world, because changes occur on a global level. Impacts on climate change must take into account global emissions, because climate change does not result from localized emissions. Construction and operation of the SCH Project alternatives and the other projects described above would result in GHG emissions, but the incremental increase would be negligible in relationship to total emissions throughout the world, and the impact would be less than significant.

#### 4.3.10 Hazards and Hazardous Materials

The geographic scope for the hazards and hazardous materials cumulative impact analysis is Imperial County. Construction of the SCH Project alternatives and the projects discussed above could result in the release of hazardous materials, encounter contaminated soils, increase the risk of wildland fires, and temporarily increase traffic along adjacent roads. With adherence to state, Federal, and local requirements, cumulative impacts would be less than significant.

Construction of projects discussed above could result in the release of dust-borne disease causing viruses, as could the SCH Project. Adherence to local regulations for dust suppression would reduce potential impacts, but given the extent of ground disturbance that could occur, significant cumulative impacts could occur, and the SCH Project's contribution would be considerable. The primary persons who would be exposed to borne-borne diseases would be construction workers. Implementation of MM HAZ-1, requiring construction worker training related to soil exposure, would reduce the SCH Project's contribution to a significant cumulative impact to less than significant.

None of the other projects discussed above would have the potential to increase selenium levels in sport fish and waterfowl. Thus, no cumulative impacts would occur.

The Desert Springs Resort would create new year-round water bodies (e.g., water features at golf courses and lakes), which could attract waterfowl to roost and forage, which may increase the risk of birdstrikes with civilian and military aircraft in the area of these new permanent water bodies. However, given the implementation of applicant-proposed mitigation measures, such as bird control measures and the placement of water bodies in relation to the approach and departure paths for Naval Air Facility El Centro, the project was found to be consistent with the Airport Land Use Plan (County of Imperial 2010a). Implementation of the SCH Project alternatives would result in the creation of ponds in the area immediately adjacent to, or within the area currently occupied by the Salton Sea. Thus, the SCH Project would preserve opportunities for waterfowl to roost and forage near the existing deltas of the New and Alamo rivers. Because waterfowl and other birds currently roost, breed, and forage in these areas, SCH Project implementation would not substantially change the location of these activities. SCH Project implementation would also not substantially increase the numbers of waterfowl that utilize the Salton Sea for roosting or foraging. Moreover, the number of birds in the surrounding area will decrease as the salinity level of the Salton Sea increases and as the water surface elevation declines. Given the implementation of the applicant-proposed mitigation measures included as part of the Desert Springs Resort Project and the lack of increased bird populations associated with the SCH Project, cumulative impacts associated with increased risk for birdstrikes with civilian and military aircraft would be less than significant.

#### 4.3.11 Hydrology and Water Quality

The geographic scope for the hydrology and water quality cumulative impact analysis is shown on Figure 4-1. Construction-related impacts on water quality would be temporary and localized and would not contribute to a cumulative impact in combination with other projects.

The hydrology analysis performed for the SCH Project (refer to Section 3.11, Hydrology and Water Quality) already takes into consideration impacts from a number of other projects that would affect the salinity and water surface elevation of the Salton Sea. However, SWWTP would provide up to 200,000 gpd to the IVS Project. This diverted water would otherwise be discharged into the New River and eventually flow to the Salton Sea. Under Alternatives 1, 2, and 3, the SCH Project also would require diversion of the water from New River to fill the SCH ponds. The amount that would be diverted from the New River by the SWWTP Project is minor (0.03 to 0.16 percent of the total discharge). As discussed in Section 3.11, impacts on hydrology and water quality from the SCH Project would be less than

significant, and this minor increase in the amount of water diverted would not change this conclusion. The cumulative impact would be less than significant.

#### 4.3.12 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Indian tribes or individuals. No ITAs exist in the SCH Project area or nearby vicinity and no impacts on ITAs would occur under any of the SCH Project alternatives. Therefore, no cumulative impacts on ITAs would occur.

#### 4.3.13 Land Use

The geographic scope for the land use cumulative impact analysis is Imperial County. The projects described above would require approvals by Imperial County, who would be responsible for ensuring that the development was consistent with the General Plan. Assuming the implementation of mitigation measures included in this EIS/EIR, the SCH Project would be compatible with the Imperial County General Plan and other applicable land use plans and policies. The Project would be compatible with existing and future land uses planned for the area and would not contribute to a cumulative impact in combination with other projects.

#### 4.3.14 Noise

The geographic scope for the noise cumulative impact analysis is limited to the area within 1 mile of the proposed SCH sites and adjacent to the haul routes. Noise from construction, operations, and maintenance activities at the SCH sites would be localized, and would not contribute to a cumulative impact in combination with other projects described above. Construction truck traffic associated with the projects discussed above and the SCH Project would travel local roads and would cause a temporary increase in noise, which at some locations would be in proximity to residents. Because the projects are located at dispersed locations around the Salton Sea and as it is unlikely that many of the projects would be constructed at same time, the routes used by construction trucks would vary, and even during periods of heaviest construction activities (e.g., during delivery of materials), trucks would not constantly pass residential receptors. Since it takes a doubling of vehicular traffic to increase noise levels by 3 dBA, the addition of truck trips from construction of the projects would not cause a perceptible increase in noise along local roads, and cumulative impacts would be less than significant.

#### 4.3.15 Paleontological Resources

The geographic scope for the paleontological resources cumulative impact analysis is Imperial County. Ground-disturbing activities associated with construction, operation, and maintenance of other projects discussed above could expose and damage undiscovered paleontological resources, and given the extent of ground disturbance, significant cumulative impacts on paleontological resources could occur. The SCH Project also would result in ground disturbance, which could expose and damage paleontological resources, and its contribution would be cumulatively considerable and, therefore, significant. Implementation of feasible mitigation measures could reduce potential impacts of the other projects, and implementation of MM PALEO-1, prepare and implement a survey plan and monitoring plan, MM PALEO-2, construction worker training, and MM PALEO-3, prepare and implement a paleontological resource data recovery plan, would reduce potential impacts of the SCH Project to less than significant.

#### 4.3.16 Population and Housing

The geographic scope for the population and housing cumulative impact analysis is Imperial County. Construction, operation, and maintenance of the projects discussed above would result in increased employment in the Salton Sea area, which could increase the local population and demand for housing or

displace existing housing or population. However, the potential increase in employment and local housing or demand for new housing would not be substantial in relation to existing employment levels or housing supply. None of the SCH Project alternatives would displace substantial population or housing. The SCH Project would result in increased employment during construction; however, it is assumed that most construction workers would be local, and a short-term influx of a small number of workers and their families would not affect long-term population or housing demand. Operation of the SCH ponds would create several jobs, which would have a negligible effect on population levels or housing demand. Cumulative population and housing impacts would be less than significant.

#### **4.3.17      Public Services**

The geographic scope for the public services cumulative impact analysis is Imperial County. Most of the projects discussed would have a minor affect on the demand for emergency services (including police, fire, and trauma centers), although the Desert Springs Resort would result in an increased demand for fire protection. SCH Project implementation would also increase demand for emergency services (police, fire, and trauma centers) associated with increases in employment and recreational visitors. The increased demand associated with the SCH Project is not expected to affect the ability of providers to maintain their current level of service or require new or altered facilities, and the cumulative on public services would be less than significant.

#### **4.3.18      Recreation**

The geographic scope for the recreational resources cumulative impact analysis is Imperial County. Implementation of the projects discussed above could affect existing recreational opportunities (e.g., from the loss of open space) and increase demand for recreational facilities associated with increases in local population. Implementation of a SCH Project alternative would create recreational opportunities at the SCH ponds, which would be a beneficial impact. Thus, the SCH Project would not contribute to any adverse cumulative recreational impacts.

#### **4.3.19      Socioeconomics**

The geographic scope for the socioeconomics cumulative impact analysis is Imperial County. Construction and operation of the projects discussed above, along with the SCH Project, would cause an increase in local employment and an increase in tax revenue and local business revenue. These increases would result in beneficial cumulative impacts that result from worker spending and the purchases of materials and equipment.

Operation of some of the projects discussed above would reduce recreational opportunities, due to a loss of open space. Operation of the SCH ponds would increase opportunities for passive recreational activity and research, which would be a beneficial impact. Thus, the SCH Project would not contribute to any loss of recreational opportunities, and no cumulative impacts would occur.

SCH pond creation would preclude the reclamation of exposed playa for agricultural use. The hydrology analysis performed for the SCH Project (refer to Section 3.11, Hydrology and Water Quality) already takes into consideration impacts from other projects that would affect the water surface elevation of the Salton Sea. None of the other projects discussed above would affect the water surface elevation of the Sea; therefore, no impacts on exposed playa would occur beyond those identified in Section 3.19, and no cumulative impacts would occur.

Implementation of some of the projects discussed above could result in reductions in agricultural revenues, due to the permanent loss of agricultural lands or short-term losses due to construction or maintenance activities. The SCH Project would result in the loss of agricultural revenue due to removal of

agricultural land at the site of sedimentation basin under Alternatives 1 and 4, construction and maintenance activities in the water pipeline right-of-way, and temporary disruption of agricultural drains and canals during construction of pipelines and the berms around the ponds, but landowners would be appropriately compensated and cumulative impacts would not occur.

The SCH Project is not expected to increase the potential for increased crop depredation or crop contamination by bird feces, nor would any of the other projects discussed above. Thus, no cumulative impacts would occur.

#### 4.3.20 Transportation

The geographic scope for the paleontological resources cumulative impact analysis includes the haul routes that would be used by SCH vehicles within Imperial County. Implementation of the projects discussed above would increase traffic during construction and operations, which could reduce the Level of Service of any roadways below the Imperial County's standard (Level of Service C). Feasible mitigation measures may be available to reduce impacts; however, impacts could remain significant at some locations. SCH Project construction, operation, and maintenance would also result in increases in traffic along roadways adjacent to the SCH Project; however, these increases would be localized and the Level of Service along these roadways would not be reduced below Imperial County's standard. Therefore, the SCH Project's contribution to traffic conditions would not be cumulatively considerable, and its impact would be less than significant.

Construction equipment and trucks used during construction, operation, and maintenance of the projects discussed above, along with one of the SCH Project alternatives, would utilize roadways that are also used by farm equipment. With implementation of standard construction techniques (e.g., signage, flag carriers, and temporary road closures) the presence of construction equipment and trucks on roads used by farm equipment would not pose a substantial safety hazard. In addition, the presence of trucks and equipment would occur in the areas adjacent to each individual project location and the number of vehicles used during operations and maintenance activities would be relatively small. Cumulative impacts would be less than significant.

Construction equipment and trucks used during construction, operation, and maintenance of the projects discussed above, along with one of the SCH Project alternatives, would utilize roadways that are also used by emergency vehicles. During construction, implementation of standard construction techniques (e.g., signage, flag carriers, and temporary road closures) would assure that emergency vehicles would continue to have access to any roadways affected by construction. Increases in traffic associated with operations and maintenance would not preclude access by emergency vehicles, and impacts would be less than significant.

#### 4.3.21 Utilities and Service Systems

The geographic scope for the utilities and service systems cumulative impact analysis is Imperial County. Construction, operation, and maintenance of the projects discussed above, along with the SCH Project, would generate demand for water. It is anticipated that water required during construction (e.g., for dust control) would be provided by water trucked from existing service locations and demand for such water would cease at the end of construction. SCH Project operation would require water for the permanent employees, which would contribute a negligible increase in water demand. The SCH Project's contribution to cumulative impacts for water demand would not be cumulatively considerable.

Construction, operation, and maintenance of the projects discussed above, along with the SCH Project, would generate solid waste, which would be disposed of in local landfills. Sufficient capacity exists in

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currently permitted landfills to accommodate additional solid waste, and cumulative impacts would be less than significant.

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